ADVENTUM TECH

Product Datasheet: TempSense Pro

Product code TSP-01-01

OVERDESIGN

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SAFETY EXCELLENCE

CE RoHS compliant

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Product Overview

TempSense Pro is a fully wireless, single-use concrete temperature and maturity sensor developed by Adventum Tech for real-time monitoring of freshly cast concrete. Designed for single-point measurement, the sensor is embedded directly into concrete during casting and provides continuous temperature data throughout the curing process. Using ASTM C1074 maturity methodology, TempSense Pro enables accurate concrete strength prediction, optimised construction scheduling, and risk reduction for early loading and formwork removal.

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Key Features

- Fully wireless, single-use sensor
- Single-point monitoring for standard concrete elements
- ASTM C1074 compliant maturity and strength prediction
- Easy installation fixed to reinforcement
- Real-time data via LiveLoad.app

Measured parameters

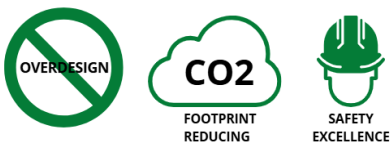
- Temperature
- Concrete age, h
- Concrete maturity
- Concrete strength, mPA

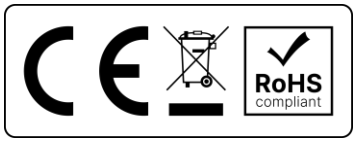
Construction Applications

- Slabs, walls, beams, columns, foundations
- Cold and hot weather concreting
- In-situ and precast concrete elements

Software & Data Integration

- Real-time visualisation of concrete strength, maturity, age and temperature
- Automated analytics and alerting
- Secure cloud-based data storage
- Project-specific dashboards
- Exportable reports for insurance, compliance, and asset management
- API and third-party software integration





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Technical Specification

Sensor Type: TempSense Pro Sensor Specification		
Parameters details		
Type		Digital Thermal Chip
Internal memory	256 kB	GW 32GB
Power/Battery	19 Ah EVE D	
TempSense Pro Technical Specification		
Parameters details		
Accuracy (Temperature range -20° to +80°)	°, Celsius degree	±0.5°
Resolution		0.1°
Range		-40 to +125°
Physical Specification		
Parameters details		
Dimensions	mm	60 x 32 x 10
Weight/Mass	g (kg)	50g
Protection		Potted, Waterproof
Material		PETG
Operating Temperature Range		Thermocouple: -40° +125°
		Battery: -20° + 60°
Radio Specification		
Parameters details		
Range (estimation for urban and rural environment)		
Urban		0 - 1km
Sub-urban		1 - 3 km
Open space		3 - 5km
Fequency		868 MHz / 915 MHz
Data Transmission		Lora / LTE 5G
Configuration		Star Topology (Point to Point)
Battery Life (*estimation for static monitoring)		
Parameters details		
15 min		2 month

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